

NOTES

THE following is a list of the officers of the Forty-eighth Annual Meeting of the British Association, which will, as we have intimated, commence at Dublin on Wednesday, August 14, 1878. President Elect—William Spottiswoode, LL.D., F.R.S. Vice-presidents Elect—The Right Hon. the Lord Mayor of Dublin, the Provost of Trinity College, Dublin, His Grace the Duke of Abercorn, K.G., the Right Hon. the Earl of Enniskillen, D.C.L., F.R.S., the Right Hon. the Earl of Rosse, D.C.L., F.R.S., the Right Hon. Lord O'Hagan, M.R.I.A., Prof. G. G. Stokes, D.C.L., LL.D., Sec.R.S. General Secretaries—Capt. Douglas Galton, C.B., D.C.L., F.R.S., Philip Lutley Sclater, Ph.D., F.R.S. Assistant General Secretary—G. Griffith, M.A., Harrow. General Treasurer—Prof. A. W. Williamson, Ph.D., F.R.S. Local Secretaries—Prof. R. S. Ball, LL.D., F.R.S., James Goff, John Norwood, LL.D., Prof. G. Sigerson, M.D. Local Treasurer—T. Maxwell Hutton. The following are the presidents of sections:—A.—Mathematical and Physical Science.—President: The Rev. Prof. Salmon, D.D., D.C.L., F.R.S. B.—Chemical Science.—President: Prof. Maxwell Simpson, M.D., F.R.S. C.—Geology.—President: John Evans, D.C.L., F.R.S. D.—Biology.—President: Prof. W. H. Flower, F.R.S. Department of Zoology and Botany: Prof. W. H. Flower, F.R.S. (president), will preside. Department of Anthropology: Prof. Huxley, Sec.R.S. (vice-president), will preside. Department of Anatomy and Physiology: R. McDonnell, M.D., F.R.S. (vice-president), will preside. E.—Geography.—President: Prof. Sir Wyville Thomson, LL.D., F.R.S.L. & E. F.—Economic Science and Statistics.—President: Prof. J. K. Ingram, LL.D. G.—Mechanical Science.—President: Edward Easton, C.E. The first general meeting will be held on Wednesday, August 14, at 8 P.M., when Prof. Allen Thomson, M.D., LL.D., F.R.S.L. & E., will resign the chair, and William Spottiswoode, M.A., LL.D., F.R.S., F.R.A.S., F.R.G.S., president elect, will assume the presidency, and deliver an address. On Thursday evening, August 15, at 8 P.M., a soirée; on Friday evening, August 16, at 8.30 P.M., a discourse by G. J. Romanes, F.L.S., on Animal Intelligence; on Monday evening, August 19, at 8.30 P.M., a discourse by Prof. Dewar, F.R.S., on Dissociation, or Modern Ideas of Chemical Action; on Tuesday evening, August 20, at 8 P.M., a soirée; on Wednesday, August 21, the concluding general meeting will be held at 2.30 P.M. Excursions to places of interest in the neighbourhood of Dublin will be made on Thursday, August 22.

THE following are the presidents of the numerous sections of the French Association which meets at Paris August 22-29:—Sections 1 and 2. Mathematics, Astronomy, Geodesy, and Mechanics, M. Collignon; 3 and 4. Navigation, Civil and Military Engineering, M. L. Reynaud; 5. Physics, Prof. A. Cornu; 6. Chemistry, Prof. Wurtz; 7. Meteorology and Terrestrial Physics, M. Hervé-Mangon; 8. Geology, Comte de Saporita; 9. Botany, Prof. H. Baillon; 10. Zoology and Zootechny, Prof. de Quatrefages; 11. Anthropology, Prof. Bertillon; 12. Medical Sciences, Prof. Teissier; 13. Agriculture, Baron Thenard; 14. Geography, M. Maunoir; 15. Political and Statistical Economy, M. Frédéric Passy.

THE Paris Academy of Sciences has at last succeeded in sending a list of candidates to the Ministry of Public Instruction to fill the place vacated by the death of M. Leverrier. The Academy suggests, by a large majority, the appointment, in the first place, of M. Faye, but M. Faye persists in declining any appointment. In the second place the Academy places the name of M. Loewy, one of the astronomers of the Observatory. M.

Loewy being an Austrian by birth, it cannot be said that the Academy has been influenced by any prejudice of nationality. The other candidates presented by the Council of the Observatory are, in the first line, Capt. Mouchez, and in the second MM. Loewy and Tisserand *ex æquo*. It is not yet known what the minister will do. He is at liberty to appoint any other astronomer who has shown himself qualified for the exalted position, as we have announced. M. Mascart has already taken possession of his post at the Observatory as being at the head of the meteorological bureau, but although the principle of separating astronomy and meteorology has been decreed, they are making at the observatory active preparation to fit up new offices for the meteorological bureau. Both services are to be separated, officially and financially, but are to be lodged in the same building as they were during Leverrier's rule. The formal opening of the Meteorological Pavilion at the Exhibition took place on Monday.

THE Anniversary Meeting of the Sanitary Institute will be held at the Royal Institution, Albemarle Street, on Wednesday, July 3, at 4 P.M., when an address will be delivered by Mr. Frank T. Buckland, on "The Pollution of Rivers and its Effects upon the Fisheries and the Water Supply of Towns and Villages." The Annual *Conversazione* of the Members and Friends of the Institute will be held on the same evening at 8 o'clock, at the Grosvenor Gallery, New Bond Street. The Autumn Congress and Exhibition of the Institute will be opened at Stafford on Wednesday, October 2, 1878. The members of the Institute have been invited to the International Congress of Hygiène, under the patronage of the French Government, which will be held at Paris during the first ten days in August, 1878.

WE commend to our readers a movement which has been set on foot for the presentation of a testimonial to Mr. P. Le Neve Foster, the secretary of the Society of Arts, upon the occasion of his completing his twenty-fifth year of service as chief executive officer. When Mr. Foster became its secretary the society numbered only about 1,000 members. At the present time it now numbers about 4,000. During the period of Mr. Foster's administration the Society has successfully dealt with many important public questions, including those of elementary and technical education, patent and copyright law reform, international exhibitions, public health, Indian and colonial and many other topics. Upon these grounds an appeal is made to the members of the Society and the public for their co-operation. An influential committee has been formed, with Lord Hatherley as president.

WE notice the death, in Nürnberg, on June 5, of Baron Ernst von Bibra, in his seventy-second year. Baron von Bibra presented an interesting instance of a cultured nobleman devoting himself entirely to science and letters, and attaining distinction in both branches—a type of character not altogether uncommon in England, but much more rarely encountered in Germany. After the completion of his university studies at Würzburg, he carried out at his castle in Franconia a series of chemical researches which, especially from a physiological point of view, attracted considerable attention. Among these were "Chemical Investigation of Various Purulent Matters" (1842); "Chemical Investigations on the Bones and Teeth of Mankind and the Vertebrates" (1844); "Physiological Action of Phosphorus on the Workmen in Match Factories," "Action of Ether" (1847); "Chemistry of the Liver and Gall" (1849); and "Composition of the Blood of the Lower Animals" (1849). In 1850 he undertook an extensive tour through South America. On his return he published analyses of sea-water collected from a variety of points in the Atlantic and Pacific. These were followed in 1853 and 1854, by valuable monographs on the "Composition of the Brain, Spinal Marrow, and Nerves;"

"Action of Narcotics on the Human System;" and "Contributions to the Natural History of Chili;" and in 1858-60, by researches on cereals and coffee. At this period von Bibra turned his attention more especially to *belles-lettres*. The record of his travels in South America was followed by works of fiction, and in a short time he won a prominent place among the German novelists of the day. So fruitful was his pen that no less than fifty-one volumes of novels and tales appeared under his name from 1861-73. Despite this degree of literary activity, the claims of science were not entirely neglected. Papers appeared from him at intervals on various South American minerals, on the chemical composition of various German geological formations, on the properties of aluminium, on a bismuth tin-lead alloy nearly as fusible as Rose's metal, on methods for regaining silver from the solutions of the cyanid, &c. Of more importance were two chemico-archæological monographs "On the Bronze and Copper Alloys of Antiquity" (1869), and "Ancient Iron and Silver Work" (1873). A paper "On the Restoration of Ancient Manuscripts and Paintings" which appeared during the present year, was lately alluded to in these columns. Baron von Bibra was a corresponding member of the Vienna Academy, and several other German academies.

THE State Museum of Sweden has suffered a severe loss through the death of Prof. C. Stål, which occurred on the 14th inst., after a few days' illness; Prof. Stål was only 45 years of age. He was keeper of the Entomological Department of the Museum, to the maintenance of which he devoted an unusual activity and diligence. He is widely known in the scientific world as the author of many important papers on hemiptera and orthoptera, to the systematising of which orders he chiefly contributed. He has been snatched away before his time from other works unfinished and from a large circle of friends who deeply deplore the decease of the amiable and faithful man.

WITH the formation of international exhibitions like that now attracting the world's notice at Paris, there are placed on record, in the form of catalogues, lists of all, or nearly all, the contents of an immense building. These contents are, as it is intended they should be, of a very varied character. The catalogues themselves being the productions of different sections or departments and of widely different nations, consequently we might expect some difference of character in the preparation of these "Guides." Too often a bulky book is produced which is nothing more than a mere list of exhibitors' names and addresses, of no use to the visitor while in the exhibition, and of still less use for reference after. Thus, for instance, opening promiscuously the catalogue of the British Section of the present exhibition, our eye rests on the name of a well-known firm of manufacturing chemists, but all the information we obtain about their exhibits is "Pure Chemicals and Pharmaceutical Products." The Australian colonies have hitherto distinguished themselves in producing full and descriptive catalogues which have been worth a place in the library not only as records of each great show, but as books of reference on the products of the Colonies. We are glad to find that our Indian exhibits are being treated in a somewhat similar way, for we have before us a "Catalogue of the Raw Products of Southern India Collected and Forwarded (under orders of the Government of Madras) to the Paris International Exhibition of 1878." This Catalogue has been prepared by Dr. G. Bidie, the Superintendent of the Government Central Museum at Madras, and comprises substances used as drugs, for food, and in manufactures. Forest products, such as woods, are excluded from this catalogue for the reason that their collection and exhibition has been made a specialty by the Forest Department, a catalogue of which has been drawn up under the title of a "Catalogue of Specimens of Timber, Bamboos, Canes, and other Forest Produce from the

Government Forests in the Provinces under the Government of India and the Presidencies of Madras and Bombay." Returning to the first-named catalogue we have an exceedingly well drawn up handbook of 136 pages divided into three great divisions of drugs, food substances, and substances used in manufactures, each being lettered in red on the margin for easy reference. These primary divisions are subdivided into products of the vegetable, animal, and mineral kingdoms, and, in the case of the drugs, again subdivided into such as are official in the Pharmacopœia of India, those not official, but described in the Pharmacopœia, and those not included in the Pharmacopœia. Again, amongst foods we have agricultural produce, such as cereals, pulses, &c., fruits and seeds, substances used in the preparation of drinks, &c., and so on through each great division. The genera of plants are arranged under each natural order, and, being printed in black letters, are very easily found. After the Latin name follows the English, French, German, and other vernaculars. The plan of the book is, in short, founded on Bridwood's "Economic Products of Bombay," with many improvements. From the catalogue of specimens of timber, bamboos, &c., we find that as many as 650 different specimens of woods have been sent from India to the Exhibition, the total number of specimens of woods and other products of trees amounting to 1,055, which, at the close of the Exhibition, are to be presented, by order of the Indian Government, to the French National School of Forestry at Nancy, "where," as we read, "for ten years past a large proportion of the forest officers of India have received their professional education."

M. DE LESSEPS has inaugurated at the Paris Exhibition a series of lectures, which will be given on Saturdays at two o'clock in the Egyptian House erected by the Suez Company and the Egyptian Government. This house has been built from designs by Mariette-Bey, and professes to represent the mansion of a noble Egyptian at the end of the thirteenth dynasty, before Abraham was born. It consists of a court and a number of rooms. In one of the largest has been placed a model of the Suez Canal and a bird's-eye view of the delta and the Isthmus. M. de Lesseps explained the great work of boring the canal, the actual state of the lands of the Company and the influence of the salaries paid to natives during the execution of the works. A second lecture by M. de Lesseps was delivered in the second hall, where has been hung an immense map of Africa as at present known. Relics of Livingstone, his books, instruments, cap, &c., have been disposed in the room as well as objects connected with the natural history, industry, and trade of the lake region. M. de Lesseps lectured on the necessity of supporting the International Society for the Civilisation of Africa, and on the results accomplished by the Egyptian Government in taking possession of the banks of the Nile from 31° to 1° N. lat.

A CONGRESS of Demography will be held at the Trocadero Palace from July 5 to 9 to discuss the following topics:—Census of population, registers of population, organisation of statistics, registration of births and deaths, publication of periodical demographical results relating to large cities, emigration, &c. A Congress of Anthropological Science will be held in the same place from July 15 to 17. The programme consists of old things adorned with new names, such as *ethnodicée*, *ethnogenie*, &c.

LET not those of our mathematical readers who are rather shaky in their French be misled by a letter in Saturday's *Times* from the editor of the *Journal des Géomètres*, inviting English *géomètres* to a conference to be held in Paris on July 8 and 9. The context seems to show that the French word *géomètres* has really its original Greek signification of "land-measurer," and corresponds more nearly to English "surveyor" than anything

else, the exact French term being, we believe, *Arpenteur-géomètre*. As the Paris *Daily News* correspondent showed the other day, even good French scholars may make themselves ludicrous to a Frenchman by translating words literally into their corresponding French forms, such as *physicien* and *chimiste*, which, we need hardly say, mean not physician and pharmaceutical chemist, but physicist and scientific chemist.

A GENERAL meeting of the Mineralogical Society of Great Britain and Ireland will be held at the Meteorological Office, 116, Victoria Street, on July 4, at 8 P.M., when the following papers will be read:—"On a New Manganesian Garnet," by Prof. M. F. Heddle; "On Cotterite, a New Variety of Quartz," by Prof. Harkness; "On Youngite," by Messrs. David Stewart and J. J. Hood, communicated by Mr. J. B. Hannay; "Notes on Cornish Minerals," by Mr. J. H. Collins.

THERE is every prospect at present of the early commencement of another of the gigantic engineering enterprises characteristic of our century. The last steamer from Panama brings news of the ratification of the contract between the Government of Columbia and the International Committee for the Construction of a Canal across the Isthmus of Darien. Among the conditions we notice the clause declaring the future canal to stand open to the commerce of the entire world, and to be entirely neutral. Another condition is the completion of the work before 1895, but we fear that only pronounced optimists will look forward to the fulfilment of this clause. The Canal Company receives a grant of land including stretches 200 yards wide on each side of the canal, and over 1,000,000 acres in addition, to be chosen at will. It has besides the free use of all building materials on the isthmus, so that no complaint can be made of a lack of readiness on the part of Columbia to further the undertaking.

M. BARDOUX has opened at the Palais du Champ de Mars the Exhibition connected with Public Instruction. The minister said in his address that, owing to the recent progress of France, that country was now inferior to no other European nation as regards popular education. The results of the last conscription are highly satisfactory in this respect. Out of 294,382 men admitted into the ranks of the French army in 1877, only 4,992 were unable to read or write, 2,620 had taken their preliminary degrees in letters or sciences, 234,279 knew the "three R's," 36,325 could only read and write, and 5,856 could only read. Elementary schools have been established in the various regiments of the French army for years, but the attendance, which had been very limited, is now almost universal. Not less than 305,989 soldiers were pupils of regimental schools in 1877; out of these, 255,380 followed the course of elementary instruction, 36,981 the secondary course, and 4,682 the course of superior instruction. The army has been turned into a machine for promoting elementary knowledge. In 1877 not less than 33,337 soldiers learned to read, 24,483 to write, and 111,303 were taught arithmetic. Under guidance of their officers, 200 soldiers from the garrisons of Paris visit the Exhibition daily.

THE Emperor of Germany has named Prof. von Brücke, of Vienna, and the mathematician, C. Hermite, of Paris, as knights of the Order of Merit for Science and Art.

THE well-known physicist, Prof. Clausius, of Bonn, has been elected a member of the Swedish Academy of Sciences.

M. G. A. SIX has lately written a history of the progress of botany in Holland, a work for which this little kingdom has certainly furnished rich material during the past two centuries.

AN interesting fact for agriculturists is communicated by Herr Rudolf Mayerhöffer, of Prague, the editor of the agricultural serial, *Der Bienenwatter aus Böhmen*. It appears that a German

colonist upon the Island of Java has successfully tried the cultivation of the native bee, *Apis dorsata*, which hitherto has been valued by the natives only for the sake of the larvæ. Herr Mayerhöffer even expresses the hope that it will be possible to acclimatise the Javanese bee in Europe.

ON July 1 Prof. Victor Carus will bring out the first number of a new serial entitled *Zoologischer Anzeiger*, which will form a sort of zoological record in monthly instalments, and, to a certain extent, will be the continuation of Carus and Engelmann's invaluable "*Bibliotheca Zoologica*." Engelmann of Leipzig is the publisher. The new serial will contain communications regarding museums, institutions, and private collections, notes on zoological and biological subjects, besides a quantity of generally interesting scientific matter.

THE *Japan Times* understands that for the Hong-Kong "afforestation" scheme considerable quantities of seed have lately been forwarded thither at the request of the authorities. As much as will furnish a quarter of a million trees has been sent, the varieties being the *sugi*, *kinoki*, and *tsubaki* (the wild, single-flowered camellia).

PROF. FRÜS, of Christiania, who has been engaged for years in the preparation of a complete dictionary of the Lapp language, has nearly brought his work to a conclusion. This language is richer than most of the northern tongues, the first eleven letters of the alphabet embracing not less than 12,000 words.

THE Harvey Tercentenary Memorial Fund is so far advanced that it has been resolved to take steps to select a sculptor to whom the execution of the memorial statue should be intrusted. Of 1,680*l.* subscribed, 1,228*l.* are in hand.

A MANATEE, caught at the mouth of the Essequibo River, British Guiana, is now on view at the Westminster Aquarium. The poor "whale" has gone the way of its predecessor.

M. A. COSSA has recently communicated to the Academia dei Lincei the results of extensive litho-chemical investigations on the Island Volcano, north of Sicily. He has succeeded in finding here considerable quantities of the sulphates of the rare metals lithium, thallium, cesium, and rubidium, apparently in the form of alums. The metals appear to have been present in the rocks surrounding the crater, as silicates, and the latter have been decomposed by the acid vapours mounting from the interior of the volcano. Hitherto the mineral pollux scattered over the Island of Elba has been the most abundant source of cesium and rubidium.

THE additions to the Zoological Society's Gardens during the past week include a Pig-Tailed Monkey (*Macacus nemestrinus*) from Java, a Scarlet Ibis (*Ibis rubra*), a Red-Billed Tree Duck (*Dendrocygna autumnalis*) from South America, presented by Mr. R. M. Hyde; a Green Monkey (*Cercopithecus callitrichus*) from West Africa, presented by Mr. Samuel Curtis; an Indian Gazelle (*Gazella bennetti*) from India, presented by Miss Statter; two Prairie Marmosets (*Cynomys ludovicianus*) from North America, presented by M. J. N. Cornely; three Common Cormorants (*Phalacrocorax carbo*), British Isles, presented respectively by Mr. Edward Banks and Mr. W. Thompson; two Cereopsis Geese (*Cereopsis nova-hollandiae*), two Australian Sheldrakes (*Tadorna teniatus*) from Australia, a Yellow-Billed Sheathbill (*Chiornis alba*) from Antarctic America, purchased; two Manchurian Crossbills (*Crossoptilon manchuricum*) from China, received in exchange; two Argus Pheasants (*Argus giganteus*), four Summer Ducks (*Aix sponsa*), four Chiloe Widgeons (*Mareca chilensis*), three Australian Wild Ducks (*Anas superciliosa*), bred in the Gardens.